

WHAT IS CLAIMED IS:

1. A carbon monoxide transforming apparatus for fuel cell, which comprises:

a reaction vessel having gas inlet and outlet

5 ports; and

a catalyst filled in said reaction vessel and having at least platinum or palladium carried on a carrier which has a base point on the surface thereof.

2. The carbon monoxide transforming apparatus for
10 fuel cell according to claim 1, wherein said catalyst
is constructed such that the carrier having a base
point on the surface thereof is formed of titanium
oxide, and that platinum is carried on the carrier.

15 3. The carbon monoxide transforming apparatus for
fuel cell according to claim 1, wherein said catalyst
is constructed such that the carrier having a base
point on the surface thereof is formed of titanium
oxide, and that platinum and a rare earth element are
carried on the carrier.

20 4. The carbon monoxide transforming apparatus for
fuel cell according to claim 3, wherein said rare earth
element is at least one element selected from the group
consisting of lanthanum and cerium.

25 5. The carbon monoxide transforming apparatus for
fuel cell according to claim 3 or 4, wherein platinum
and a rare earth element are carried on the titanium
oxide carrier at a ratio of 0.1 to 3% by weight and 0.3

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to 3% by weight, respectively.

6. The carbon monoxide transforming apparatus for
fuel cell according to claim 1, wherein said catalyst
is constructed such that the carrier having a base
5 point on the surface thereof is formed of zinc oxide,
and that platinum is carried on the carrier.

7. The carbon monoxide transforming apparatus for
fuel cell according to claim 1, wherein said catalyst
is constructed such that the carrier having a base
10 point on the surface thereof is formed of iron oxide,
and that platinum and a rare earth element are carried
on the carrier.

8. The carbon monoxide transforming apparatus for
fuel cell according to claim 7, wherein said rare earth
15 element is at least one element selected from the group
consisting of lanthanum and cerium.

9. The carbon monoxide transforming apparatus for
fuel cell according to claim 7 or 8, wherein platinum
and a rare earth element are carried on the iron oxide
20 carrier at a ratio of 0.5 to 5% by weight and 1 to 3%
by weight, respectively.

10. The carbon monoxide transforming apparatus for
fuel cell according to claim 1, which further comprises
a cooling coil for cooling the catalyst, the cooling
25 coil being disposed inside said reaction vessel.

11. The carbon monoxide transforming apparatus for
fuel cell according to claim 1, wherein said reaction

vessel is partitioned by means of a plurality of gas-permeating plates into plural sections which are arranged between the gas inlet port and the gas outlet port, each section housing a catalyst or a cooling coil, which are alternately arranged.

12. A fuel cell power generating system comprising:

a reformer for converting a raw fuel into a hydrogen-rich reformed gas;

10 a carbon monoxide transforming apparatus comprising a reaction vessel having gas inlet and outlet ports, and a catalyst filled in said reaction vessel and having at least platinum or palladium carried on a carrier which has a base point on the
15 surface thereof; and

a fuel cell having a fuel electrode into which a transformed gas is introduced from said transforming apparatus.

13. The fuel cell power generating system
20 according to claim 12, wherein a desulfurizer is
further disposed on an upstream side of said reformer.

14. The fuel cell power generating system
according to claim 12 or 13, wherein a selective
oxidizing means for selectively oxidizing carbon
monoxide in the transformed gas fed from said
transforming apparatus is further disposed between said
reformer and said fuel cell.